

Appl. No. : 10/730,377
Filed : December 8, 2003

AMENDMENTS TO THE CLAIMS

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Currently Amended) A sole construction, comprising:
a plurality of stretchable layers spaced apart from one another, wherein the
plurality of stretchable layers have a first side and a second side;
a plurality of actuators, each actuator positioned on the first side of at least one of
a corresponding stretchable layer;
a plurality of chambers, each chamber being positioned on the second side of the a
corresponding stretchable layer; and
a plurality of perimeter walls, each perimeter wall surrounding a corresponding
stretchable layer to prevent horizontal displacement of said layer when the actuator is
compressed against the layer into a corresponding chamber;
wherein each stretchable layer has raised walls;
wherein the raised walls are on the first side of the stretchable layer; and
~~The sole construction of Claim 4;~~ wherein the raised walls are shaped to
correspond with an outer border of a corresponding actuator to guide the actuator against
the stretchable layer and to minimize horizontal displacement of the stretchable layer
when the actuator is compressed against the stretchable layer into a corresponding
chamber.
6. (Currently Amended) A sole construction, comprising:
a plurality of stretchable layers spaced apart from one another, wherein the
plurality of stretchable layers have a first side and a second side;
a plurality of actuators, each actuator positioned on the first side of at least one of
a corresponding stretchable layer;
a plurality of chambers, each chamber being positioned on the second side of the a
corresponding stretchable layer; and

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a plurality of perimeter walls, each perimeter wall surrounding a corresponding stretchable layer to prevent horizontal displacement of said layer when the actuator is compressed against the layer into a corresponding chamber;

~~The sole construction of Claim 2~~, wherein each chamber is defined within a chamber layer, said chamber layer including said perimeter wall that at least partially surrounds said chamber.

7. (Previously Presented) The sole construction of Claim 6, wherein each chamber layer further includes an inner wall surrounding the chamber that is shaped to correspond with an outer border of a corresponding actuator.

8. (Previously Presented) The sole construction of Claim 6, wherein each chamber layer includes a plurality of plungers therein, and each corresponding actuator comprises an actuator layer having a plurality of actuators with chambers therein sized to receive the plurality of plungers.

9. (Previously Presented) The sole construction of Claim 8, wherein each stretchable layer has raised walls on the second side of the stretchable layer shaped to surround the plurality of plungers and guide the plurality of plungers into the plurality of chambers of the actuator layer, thereby minimizing horizontal displacement of the stretchable layer when the actuator layer is compressed against the stretchable layer into the chamber layer.

10. (Currently Amended) The sole construction of Claim 6 2, wherein the plurality of stretchable layers lie in substantially the same plane.

11. (Currently Amended) The sole construction of Claim 6 2, wherein the plurality of actuators include a heel actuator, a toe actuator, and a metatarsal actuator.

12. (Currently Amended) The sole construction of Claim 6 2, wherein the sole construction is part of a footwear insert.

13. (Currently Amended) The sole construction of Claim 6 2, wherein the sole construction is part of a footwear upper.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

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18. (Currently Amended) A sole construction, comprising:
a resilient layer of stretchable material having a first side and a second side;
at least one actuator positioned on the first side of resilient layer; and
a chamber layer positioned on the second side of the resilient layer, the chamber
layer defining a chamber adapted to receive the at least one actuator therein, the chamber
layer having a perimeter wall receiving and at least partially surrounding the resilient
layer;

wherein the perimeter wall minimizes horizontal displacement of the resilient
layer when the actuator is compressed against the resilient layer into the chamber of the
chamber layer;

wherein the resilient layer has raised walls;

wherein the raised walls are on the first side of the resilient layer; and

~~The sole construction of Claim 16,~~ wherein the raised walls are shaped to correspond with an outer border of the at least one actuator to guide the actuator against the resilient layer and to minimize horizontal displacement of the resilient layer when the actuator is compressed against the resilient layer into the chamber of the chamber layer.

19. (Currently Amended) A sole construction, comprising:
a resilient layer of stretchable material having a first side and a second side;
at least one actuator positioned on the first side of resilient layer; and
a chamber layer positioned on the second side of the resilient layer, the chamber
layer defining a chamber adapted to receive the at least one actuator therein, the chamber
layer having a perimeter wall receiving and at least partially surrounding the resilient
layer;

wherein the perimeter wall minimizes horizontal displacement of the resilient
layer when the actuator is compressed against the resilient layer into the chamber of the
chamber layer;

~~The sole construction of Claim 14,~~ wherein the chamber layer includes a plurality of plungers therein, and the at least one actuator comprises an actuator layer having a plurality of actuators with chambers therein sized to received the plurality of plungers.

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20. (Currently Amended) The sole construction of Claim 19, wherein the resilient layer has raised walls on the second side of the resilient layer shaped to surround the plurality of plungers and guide the plurality of plungers into the ~~plurality of chambers~~ of the actuator layer, thereby minimizing horizontal displacement of the resilient layer when the actuator layer is compressed against the resilient layer into the chamber of the chamber layer.

21. (Previously Presented) The sole construction of Claim 19, wherein each of the actuators and plungers are positioned to correspond generally with the location of human toes.

22. (Previously Presented) The sole construction of Claim 19, wherein each of the actuators and plungers are positioned to correspond generally with the location of metatarsal bones.

23. (Currently Amended) The sole construction of Claim ~~25~~ 14, wherein the at least one actuator comprises a heel thruster.

24. (Currently Amended) The sole construction of Claim ~~25~~ 14, wherein the perimeter wall is shaped to correspond with an outer border of the resilient layer.

25. (Currently Amended) A sole construction, comprising:
a resilient layer of stretchable material having a first side and a second side;
at least one actuator positioned on the first side of resilient layer; and
a chamber layer positioned on the second side of the resilient layer, the chamber layer defining a chamber adapted to receive the at least one actuator therein, the chamber layer having a perimeter wall receiving and at least partially surrounding the resilient layer;
wherein the perimeter wall minimizes horizontal displacement of the resilient layer when the actuator is compressed against the resilient layer into the chamber of the chamber layer;

~~The sole construction of Claim 14,~~ wherein the chamber layer further includes an inner wall surrounding the chamber that is shaped to correspond with an outer border of the at least one actuator.

26. (New) The sole construction of Claim 25, wherein the at least one actuator is positioned in a forefoot portion of the sole construction.

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27. (New) The sole construction of Claim 25, wherein the at least one actuator is positioned on a lower side of the resilient layer.